



Battlespace Systems Support Directorate Bulletin

(Formerly the "A/IEW Bulletin")



"Serving the Needs of the Battlespace Systems Community"

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Building an Aircraft Survivability Equipment Program that Works!!!

Army National Guard (ARNG) and Reserve aviators now comprise over half of the Army Aviation community. As an Electronic Warfare Officer (EWO) at the Brigade, Battalion, or Troop-level in a National Guard or Reserve unit, your duties are the same as your Active Duty counterpart, but you also face additional challenges. This article will show the approach the Indiana ARNG used to build and maintain an effective Aircraft Survivability Equipment (ASE) program that works within such a challenging environment.

EWO 101 and the Need for an ASE Program

To understand what makes a good ASE program, you must understand what role the EWO plays in his or her unit. For those not familiar, Fort Rucker's ASE/EWO School's student handout "Introduction to Electronic Warfare for the ASE/EWO" lists an EWO's nine required duties, the single most important of which is Technical Advisor to the Commander. Other EWO responsibilities include monitoring the inspection and maintenance of ASE systems, serving as primary administrator over Aircraft Survivability Equipment Trainer (ASET) tools, providing aircraft system training, and controlling classified information.

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Typical EWO duties also include: coordinating the National Imagery Mapping Association (NIMA) mapping for the Portable Flight Planning System (PFPS) and Aviation Mission Planning System (AMPS), and managing the COMSEC for: Global Positioning Systems (GPS), Single Channel Ground and Airborne Radio Systems (SINCGARS), AN/ARC-164 HAVE QUICK radios, Identification, Friend or Foe (IFF) systems, KY-58 and KY-100 Secure Voice Communications Systems, and the Data Transfer Cartridge for the AN/ASN-128B Navigation System. Finally, as the primary unit trainer on ASE, you must ensure each unit member is trained on Threat Identification, the AN/APR-39-family of Radar Warning Receivers and their Mission Data Sets (MDS), the AN/ALQ-144 Countermeasures Set, the M-130 General Purpose Dispenser, the AN/CYZ-10 Automated Net Control Device (ANCD), the Secure Internet Protocol Router Network (SIPRNET), and the Multi-Service

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From the Senior Editor's Desk

Written by Mr. Joseph Ingrao, Deputy Director, (A), Battlespace Systems Support

Leadership & Change



When times are stable and secure, we are not severely tested. We may perform well, we may get promoted, and we may even achieve fame and fortune. But certainty and routine breed complacency. In times of calm, we don't take the opportunity to burrow inside and discover the true gifts buried down deep.

In contrast, personal and business hardships have a way of making us come face-to-face with who we really are and what we're capable of becoming. Name any great leader, scientist, or athlete -- chances are that the crucible of that person's crowning achievement was some distressing crises, wrenching change, tragic misfortune, or risky venture. Only challenge produces the opportunity for greatness. And given the daunting challenges we face today, the potential for greatness is monumental.

In the process of transformation, people and their organizations live with a high degree of ambiguity. Innovation upsets the stability we've worked hard to establish; it throws off our equilibrium. The thing we fear most in organizations, fluctuations, disturbances, imbalance, are also the primary sources of creativity.

Leaders need psychological hardiness to cope well with the risks and failures of innovation and the challenge of change. Leaders must also have the ability to make something happen under conditions of extreme uncertainty and urgency. In fact, leadership is needed more during times of uncertainty than in times of stability. Leaders master change and they master uncertainty, seizing the imperative to act. Leaders know that action and flexibility are required to bring people through these times.

Since the terrorist attacks on our nation, I have seen many of my fellow workers rise to the leadership challenge. They have had to reach down and come up with creative ways to deal with the monumental task of providing round-the-clock support to our Warfighters, for the war on terrorism. America will prevail!!

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Electronic Warfare Data Distribution System (MSEWDDS). In all, the typical EWO has a myriad of tasks to handle, hence the need for a viable ASE program.

All aviation units are required to have an ASE training program, which is examined during the Forces Command (FORSCOM) Aviation Resource Management Survey (ARMS) inspection. At Fort Rucker, EWO's learn about a variety of items and equipment, and are sent home with the knowledge and desire to build an effective ASE program. Unfortunately, the priority of other training events, and sometimes limited funding, can make building a solid program difficult. Today, mission accomplishment and survivability of Army aviation units depends on an understanding of their role in combined arms employment and tactics, and an ineffective ASE program is not an option we can live with.

The Plan to Get to Where We Are

The Indiana ARNG has established an ASE program that any ARNG or Reserve aviation unit could use as a model for their own program. Upon returning from the ASE/EWO School in February 2000, I found that the Indiana ARNG had two ASET-II trainers, one Secure Telephone Unit-III (STU-III) (which did not work), a four-drawer safe, and two folding tables (for a desk) for their ASE program. Today, two years and a considerable financial investment later, we have four desktop computers, and a large SECURE room from which to operate the ASE program for our three aviation units. We also have three laptop computers, one for each unit EWO, although we use one laptop exclusively for access to the SIPRNET and the MSEWDDS. Finally, the room has a filing cabinet for each unit EWO to maintain training files and material, as well as ASE equipment. Funding for this project required support from all our aviation units and the State Army Aviation Officer.

Below, I have outlined a six-step approach that I believe is useful for establishing and maintaining a successful ASE program:

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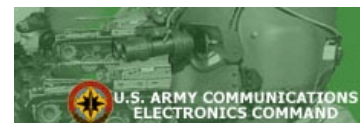
BSSD

Expanding Our World

From its beginning as the "ARAT Bulletin" in April 1994 and its transition to the "A/IEW Bulletin" in April 2000, our publication has grown to include a greater variety of topics and a wider reader base. With this issue, we expand our world again to include the entire CECOM SEC Battlespace Systems Support Directorate with its more than 150 Mission Critical Defense Systems used in the Communications, Intelligence and Electronic Warfare, Fire Support, Intelligence Fusion, Command



d Avionics and Sensors Battlefield Function. We look forward to expanding our scope and serving an even larger portion of the Warfighter Community.



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• STEP 1 - "Selling"

The objective of your program should be to use COMSEC, ASE, and Mission Planning on a daily basis during Additional Flight Training Periods (AFTPs), two-week annual training periods (AT), and on Inactive Duty Training (IDT) weekends. Understandably, it is often difficult for Commanders, Instructor Pilots, and Army Aviation Support Facilities (AASF) to add additional training requirements to their plates. However, due to the current OPTEMPO of the active Army, Reserve and National Guard, units are finding themselves on a short list for potential mobilization. Additionally, as the Army fields new equipment to our units, we cannot afford to overlook a solid ASE program, and it is up to the EWO to have ASE-related training added to the schedule.

• STEP 2 - "Equipping and Communicating"

Computers are an essential element of all training in the Army today. We utilize computers during every mission, during weather briefings, aircraft systems training, and other routine training events. For example, many publications such as the *Air Force Tactic, Techniques and Procedures Guide 3-1* Volume II (AFTTP 3-1 Vol. II), the ASET, and the Recognition of Combat Vehicles (ROC-V) programs are all on CDs. Furthermore, the AN/APR-39A(V)1/2 requires access to the MSEWDDS to download MDSs, and the "EWOSS 2000" program to install the MDS.

The types of computers you use can be just as important as having computers to begin with. Just as a Safety Officer needs a laptop to track and conduct training, so does the EWO. A laptop is an essential tool all EWOs must have because, with a laptop, you can take training, mission planning and MDS reprogramming to the field.



Although computer equipment and software can be costly, a small investment can go a long way. For example, by upgrading to NIMA's PFPS/Falcon View software and installing a color printer, units can have real-time battlefield information and threat situational awareness with the right hardware and software.



Secure communications go hand-in-hand with computer equipment. A STU-III, Secure Telephone Equipment (STE) or secure data device are a must to access the SIPRNET and the MSEWDDS, two tools through which EWOs can get real-time information on what is going on in the world and potential deployment areas. You must coordinate your dial-in accounts to both the SIPRNET and the MSEWDDS through the

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Army Reprogramming Analysis Team at Fort Monmouth, NJ. You should also acquire a secure fax with its own STU-III. After 11 September, our unit was receiving classified faxes on a daily basis. In order to receive the faxes we would travel 40 to 45 minutes to retrieve them, and then travel back to send a reply, which necessitated the facility acquiring a secure fax.

Some additional equipment needed for a strong ASE program includes general office supplies, computer workstations, bookshelves, erasable training boards, filing cabinets, safe, and a large CD cabinet, all located in a dedicated secure room. Trying to find a secure room to operate an ASE Program may be difficult, but is required for working with classified material and accessing the SIPRNET. No room – no effective program!

• STEP 3 - “Training”

Training on threat ID, ANCD, AMPS, PFPS, and the use of ASE on our aircraft is time consuming. Ancillary tasks, such as documenting training and loading data fills, are just as difficult and all require the use of precious training time. It is essential that an EWO make maximum use of all available resources.

Threat ID is more difficult today than ever. Equipment used on the battlefield may be the same between friendly and enemy forces, so we must be able to ID unit markings as well as the target. AMPS/PFPS can assist with equipment locations, movement of friendly forces, and effective range of threat weapon systems. As previously mentioned, threat training does not stop while deployed to a field site, and effective mission planning and the proper use of AMPS are vital parts of our mission training. Training should also include accessing and working with the SIPRNET and MSEWDDS.

The ANCD is a great tool that will hold all of the Secure Commo, SOI's, and IFF codes. The challenge is training on the ANCD, knowing which application to use, and which code needs to be loaded for that piece of equipment. Self-contained radio sets (VHF/FM, UHF, with KY-58) that plug into 110 V/AC, are effective static trainers.



ASE is the most difficult part of the training. It is difficult to train in the aircraft without going to the Joint Readiness Training Center or the National Training Center, so you should use flight and threat simulators, if available. For instance, the Air Force at Camp Atterbury, IN, has ASET-IV trainers that allow our aircrews to train in the use of the M-130, AN/ALQ-144, and AN/APR-39A(V)1.

It is essential that you track this training at the individual and unit level. At the Battalion and Brigade-level, you will need to track unit's ASE training requirements that support the Commander's training plan and the unit's Mission Essential Task List.

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• *STEP 4 - "COMSEC Equipment and Training"*

Army Aviation equipment such as GPS, HAVE QUICK, IFF, KY-58, KY-100, and the High Frequency radio all require COMSEC tapes and certain techniques to install the COMSEC. Normally, the unit EWO would take the ANCD to the Signal COMSEC Officer and load all codes; however, COMSEC Officers/NCOs are not always available. In some cases, they may be located in another state with the unit's higher headquarters. In Indiana, for example, the AASF controls the COMSEC tapes, per regulation, and the COMSEC tapes have their own storage safe. The bottom line is that crewmembers should utilize and train on using COMSEC as often as possible, because the facilities and procedures that are common in Garrison may not be available once you deploy.

• *STEP 5 - "Tracking"*

Establishing a good tracking plan is essential. The "Get Well" tracking sheet from Fort Rucker is a good starting point.

Tracking of the ASE equipment is a challenge that National Guard and Reserve units must face daily. An AASF may maintain two to three different units' aircraft; however, these are normally the same types of airframe. Technicians may place one unit's ASE item into another unit's aircraft if that equipment goes down for maintenance, making tracking difficult. For this reason, maintenance and avionics personnel must maintain a tracking system. In addition, when you send equipment out for repair, that too must be tracked using the same tracking board. Remember, as an EWO, you must do accountability checks on this equipment at least quarterly, so a good tracking system will let you know where each item is located.



Tracking of codes and ANDC status is also an essential task required for an EWO and a necessity for mission readiness, training, and conformance to regulations. A simple mission board will suffice for this tracking system. Purchasing soft back brief cases and incorporating a logbook with various forms to track what, when, and which aircraft has been loaded make tracking relatively easy. This is also a great way of tracking maintenance and usage on the ANCD.

• *STEP 6 - "Managing"*

Managing an ASE Program is an arduous task for EWOs in the National Guard and Reserves. The active Army has EWOs, Mission Planners, and COMSEC personnel that handle the

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needs of the unit on a daily basis. National Guard and Reserve aviation units and flight facilities do not have full time EWO positions -- it is a secondary duty that is often rotated among the unit's pilots. Tracking requirements, maintaining COMSEC, planning for and conducting training, and staying on top of the current threat will keep your ASE Program strong. Safety and aircrew survivability are the most important consideration in Army Aviation, so managing your program will avoid you being asked the question -- "why is our aircraft survivability equipment not being trained and used?"

Conclusion

Author and editor Norman Cousins once said, "History is a vast early warning system." During Operation "Desert Storm", AH-64's inadvertently shot friendly vehicles and personnel. During a peacekeeping mission, flying through a controlled "No Fly Zone," two UH-60 were shot down, possibly due to improper IFF training/procedures. Army Aviation units must develop an ASE Program that will prepare crewmembers for their role in combined arms employment and tactics, and prevent mistakes of the past. I have outlined the basics of an effective ASE Program: threat ID and aircraft equipment training, COMSEC, mission planning, tracking, and managing the program. Above all, selling the idea of an ASE Program is the most difficult and important task an EWO could face.

I would like to leave the readers with a thought: "Why do we not learn from history? Do not let history repeat itself!"

For additional information, please contact:

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All Source Analysis System-Single Source Java Map Makes All the Difference

Introduction

All Source Analysis System-Single Source (ASAS-SS) users had identified the need for a more robust, operator-friendly mapping application that offers the common look and feel of the other ASAS products. That application, Java Map, is now a reality in Software Version Release SS3.0, which provides a real face-lift to the system. SEC Intelligence Fusion Systems (IFS) engineers evaluated various options and selected Java as the

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ASAS-SS (cont'd)

target programming language because it met all the design goals of portability across platforms and operating systems. Engineers began with a major design shift that separated the map-related functions from the rest of the system-related functions and provided an interface between the two. This design decision assured a smoother, quicker development of the map enhancements while having very little impact on the ASAS-SS functionality.

New or Improved Features

The first item improved – the users' tool to interact with the ASAS-SS, otherwise known as the Graphical User Interface (GUI) – was designed to be more intuitive and easier to use. Now, users can access most functions/utilities with two mouse clicks, or by selecting one of seven main menu bar items. This improved GUI greatly reduces the time and effort necessary to perform routine map-related tasks.

Another feature that increases the speed of the operation is the capability to automatically fill in any field requiring location input by clicking on the map at the required position. Location trackers follow the mouse movements and display the exact location in various coordinate formats (e.g., Universal Transverse Mercator [UTM], Military Grid Reference System [MGRS], Degrees-Minutes-Seconds [DMS], etc.) The system also verifies and validates all input prior to processing. A status bar displays instructional and informational messages, and each window has an associated "Help" menu. The Map functionality has the Microsoft Windows "feel" (e.g., cut, copy, paste, and delete) and uses the commonly accepted standard of keystroke combinations. Users now feel more comfortable with both the display presentation and the standardization.

A critical function of a map utility is the ability to read multiple formats used for backgrounds. The new Java Map for Release SS3.0 adds the capability to read Arc Raster Chart (ARC) Digitized Raster Graphics (ADRG), and Compressed ADRG (CADRG), as well as Graphic Interface Format (.gif) and Joint Photographic Experts Group (.jpeg) files, for use as backgrounds. Java Map also improves the use of Digital Terrain Elevation Data (DTED) by allowing Levels 0, 1, and 2 data to be used directly from the National Imagery and Mapping Agency (NIMA) format. Java Map also supports using Digital Feature Analysis Data (DFAD) directly from the NIMA format. Depending on their requirements, users can store the data on their local host, on a remote map host, or on both. As necessary, data from either or both sources can be merged into a seamless background. The capability to support multiple backgrounds benefits users in the following ways:



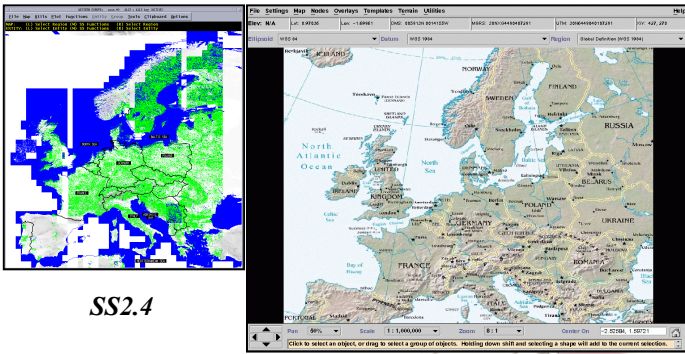
- It vastly increases the amount of background data available because NIMA provides direct download, from the Internet, of Level 0 DTED and CADRG data in .gif format, eliminating the need to request data for a certain Area of Interest (AOI) and then waiting for it to arrive.

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ASAS-SS (cont'd)

- It improves the users' ability to visualize data on the virtual battlefield, because different background data types allow information to be displayed in different contexts.
- It improves the users' ability to display information to the commander in a useful format.
- It reduces storage space required for background data by allowing users to share map data available on the map host.

Another enhanced feature streamlines and codifies the presentation of specific map data. The new Java Map treats overlay data as a transparency similar to that used with traditional paper maps. Information is stored logically and can be added or removed from the display as the situation demands. For example, Signals Intelligence (SIGINT) can be stored in one overlay, units in a second, weapons systems in a third, and control features in a fourth. Users can view an extremely detailed snapshot of everything on the virtual battlefield or reduce clutter and concentrate solely on one type of data. The overlay concept also allows equipment from two different overlays to be linked, thereby eliminating the requirement for all equipment to be in the same overlay. Multiple overlays, or portions of multiple overlays, can be combined into a single overlay, and users within the same enclave can share overlays through the database.



SS2.4

SS3.0

The new Java Map offers users the major advantage of being able to display information using either Military Standard (MIL-STD) 2525A or Field Manual (FM) 101-5-1 (1985) formats, in addition to the following advantages:

- Allows users to toggle between these two symbol types, permitting users trained with one symbology to develop the display in one format and display the information in the other, should their Commander prefer the other symbol set.
- Users can also customize the symbols' colors. In some cases, users prefer to plot certain types of information (e.g., signal, weapons systems, unit types) in specific colors so they can conduct an analysis of the data based on the colors seen on the virtual battlefield.
- Utilizing the "Declutter" menu, users can replace each symbol with a small dot or can scale symbols from large to small. The users can also customize the labels surrounding a symbol, combined with the MIL-STD 2525A labeling rules allowed for each symbol type.
- Users now have a searchable symbol tree where they can browse the MIL-STD S2525A symbol set to find the correct symbol.

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ASAS-SS (cont'd)

In addition, users can now plot the error ellipse around a symbol based on the data encoded in the message generating the symbol. The "Weapon Range" function allows users to specify a weapon system type that may be present at the location of a given symbol and plot the minimum and maximum range of that weapon, providing a visual indication of the threat.

A tailorable template function is available that allows users to define, for a specific unit or piece of equipment, a set of associated units and/or equipment that will be displayed in the same area. The template eliminates repetitive and error-prone tasks, such as manually adding symbols and laying them out in a typical pattern. Once saved, all the symbols in the template can be "dropped" onto the map simultaneously and oriented to a user-specified azimuth. The template data can be organized hierarchically, allowing users to show parent/child relationships between the displayed nodes.

A variety of drawing tools are now available, which let users add non-standard information to the map as the situation demands. They can select from a wide variety of colors, line styles, shapes, and fill patterns, and can also add custom labels in a variety of fonts. This invaluable enhancement allows the Warfighter to rapidly customize the presentation of data to meet mission requirements.

The improved coordinate system, at the heart of the Java Map functions, correctly models the 22 ellipsoids, 121 datums, and 218 regions that NIMA defines to model the surface of the earth. Of primary importance, users can switch easily between coordinate systems. When information is received in one coordinate system, it can be accurately plotted to a map using a different coordinate system. Java Map includes a tool that allows a side-by-side comparison of a single location in two coordinate systems, permitting the latitude and longitude in decimal degrees and DMS format, MGRS, and UTM values to be displayed. Updating any portion of any of these coordinate values updates the values for all other formats in both coordinate systems.

The "Cumulative Distance" tool allows users to click on different points on the map and leave a trail from the first point to the last. The distance (in either metric or English units) between each point, along with the total distance, is displayed. The travel time between the two points, as well as the total travel time (based on a user-specified velocity), is also displayed.

"Line-of-Sight (LOS)" and "Field of View (FOV)" are two very useful tools for determining the optimum positioning of LOS-dependent intelligence gathering equipment or communications systems. The LOS tool helps users quickly determine whether visual LOS exists between two displayed locations. The FOV tool lets users select an observer point, a maximum distance, and an angle increment, and allows the user to perform a 360-degree analysis of the terrain surrounding the observer location to determine where a visual LOS exists within an area.

As raw data is collected, analyzed, and processed into true intelligence information for the Commander to evaluate and make tactical decisions, the speed and clarity of the systems providing that information must continually improve. As Release SS3.0 is introduced to the Warfighter, the enhancements that evolved from the revamping of the mapping tools will easily prove their worth. Users now have a

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ASAS-SS (cont'd)

greater ability to portray the Common Operating Picture in a more clear and concise manner, while allowing that picture to be modified rapidly to meet the Commander's requirements, with the battlefield more defined and the enemy more visible in ASAS-SS, a Commander's response and reaction are more easily decided.

For additional information, please contact:



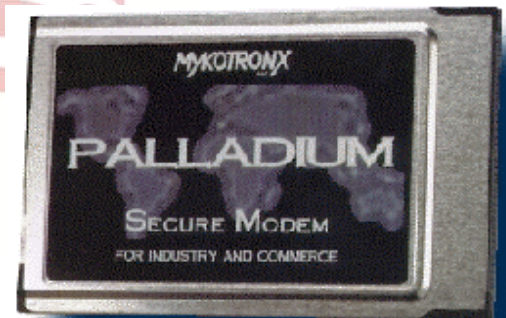
United States Army Communications-Electronics Command
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<http://cecom-ifs.army.mil>



The Latest on the Palladium Modem

The following is an update to the Army Reprogramming Analysis Team and the Electronic Combat Branch's (ECB) attempt to incorporate new technology in the suite of Secure Internet Protocol Router Network (SIPRNET) dial-up services offered at the Rapid Reprogramming Communication Infrastructure Laboratory (R²CIL). This article is a follow up to the article entitled "Palladium Modem in Approval Stage to Become Catalyst for Improved ARAT SIPRNET Dial-Up Connectivity" that appeared in the July 2001 "Avionics/Intelligence and Electronic Warfare Bulletin". For those who missed the article, it can be found on the ARAT website at <http://arat.iew.sed.monmouth.army.mil>.

As a refresher, the Palladium is a National Security Agency (NSA) accredited encryption modem that has been approved for data transmission to the SECRET level. The NSA and the Defense Information Systems Agency (DISA) also have approved it as a dial-up device to SIPRNET. Many organizations within the Government and Department of Defense have been using the device very successfully for the purpose of dialing into the SIPRNET. The Palladium website at www.rasp4secret.com provides additional information on this product.



Why is there an immediate need for the Palladium? Many remote users have STU-IIIs and STEs that are more than capable of communicating in CONUS, to CONUS-based servers on Class C DSN. Those of you in the field, however, realize that this is not always the case when communicating from OCONUS to CONUS-based servers. This is one of the reasons why the ARAT has been striving to get this device incorporated and available to Warfighters who need user friendly, secure, dependable, and fast remote communications to accomplish their mission requirements. Also, many units in the Total Army, especially in the Reserves and National Guard, do not have STU-IIIs, and may not be programmed to receive STEs. The Palladium provides a cost effective and efficient solution to this problem. The ARAT is very confident that the addition of the Palladium modem will be extremely beneficial in supplying superior dial-up connectivity to our customers, the Warfighter.

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Palladium (cont'd)

For the past 11 months, the ARAT has been attempting to gain permission to incorporate the Palladium/RASP modem into our SIPRNET dial-up suite of encryption devices. However, since the Army has yet to approve the product, the Director of Information Systems Command, Control, Communications and Computers (DISC⁴) has denied the ARAT's request to incorporate the Palladium/RASP modem into ARAT's communication infrastructure. Because of this, the CECOM G-6 office cannot give the ARAT approval to use the device at Fort Monmouth until the DISC⁴ approves the device for Army usage. The DISC⁴ stated that for a device to be approved for usage within the Army, a Major Army Command would need to create a requirement document detailing the need for such a device. In January 2002, Mr. Gary Clerie, Chief of the ECB, initiated this process by sending an updated requirements document through the CECOM chain of command to COL Thaddeus A. Dmuchowski, the Director of Information Assurance at DISC⁴.

For those that are interested in the ARAT adding the Palladium dial-up capability to our ARAT SIPRNET servers, please send correspondence to:



U.S. Army CECOM
Software Engineering Center
Attn: AMSEL-SE-WS-AI
Fort Monmouth, NJ 07703
FAX: (732) 532-5239 / DSN: 992-4238
Email: arat@arat.iew.sed.monmouth.army.mil

Receiving feedback from Warfighters has the ability to move things along. Getting your responses, outlining the need for improved dial-up connectivity from our Warfighter community, to the ARAT will be invaluable in assisting us to gain the accreditation approval needed to incorporate this technology. We also encourage Warfighters to have their chain of command express their requirements to the DISC⁴. The DISC⁴ POC information can be found at: http://www.army.mil/disc4/organization/info_ops.html

For those with general or performance data questions concerning how the Palladium/RASP Modem will work in the ARAT communications infrastructure, contact the ARAT Support team at 732-532-9395/ DSN: 992-9395.

Submitted by Mr. Michael Crapanzano, ILEX Systems

Database Tracking Commercial Software Products Online... Commercial Off-The-Shelf Software Tracking Database

The recent rise of Commercial Off-The-Shelf (COTS) products and Non-Developmental Items (NDIs) in Tactical Systems has introduced new challenges to the Communications Software Engineering Support (CSES) Division, which manages numerous Post Production Software Support projects. This rise of COTS and NDI products in Tactical Systems is a direct response of developers to the DOD policy that mandates that all

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COTS STD (cont'd)

future deliveries of developed systems utilize COTS products. Nonetheless, SEC is developing tools and management systems to help manage the complexities, challenges, and costs of the future.

One such tool recently introduced is the online Software Tracking Database (STD). The STD was developed as an expandable tool, therefore allowing it to be modified and providing the capability of interfacing with other databases to meet future needs. Although still evolving, the STD has already shown its usefulness in tracking a large variety of COTS software products and associated software licensing and maintenance contracts. The STD administrator receives daily reports of the COTS software status when maintenance expiration events are identified. The STD automatically generates warning messages starting 90 days prior to the maintenance expiration. The warnings are repeated every 30 days or until action has been accomplished to renew the maintenance contracts thus providing sufficient time for the system managers to take appropriate actions. Further, by properly synchronizing procurement of maintenance licenses with systems' fielding schedules, CSES can take full advantage of the allotted maintenance period. There are provisions to flag software products that have announced changes or version updates. The software products that have reached End-of-Life are identified as products that will normally be replaced, as they will no longer be supported. These warnings help mitigate the risk of sudden system obsolescence.

The COTS STD is a powerful tool that will meet many of the CSES COTS management challenges of the future. Currently, there are many improvements planned for incorporation in the STD, including the following:

- New status reports
- Improved long term budget forecasting
- Ability to provide software tracking down to the using unit

The STD will also be capable of providing sufficient information to system managers and administrators to make wise decisions in the procurement of COTS software and maintenance licenses. By seeing the entire procurement needs picture, managers can wisely choose to take advantage of "Economy-of-Scale" purchases, taking advantage of discounts that are applicable for large scale procurements that may span several system baselines. This acquisition data, provided by the STD, could be interfaced into a "Software Clearing House" that could provide CECOM/PMs/SEC a means to directly impact and lower costs on all future COTS software acquisitions; this interface would result in considerable command-wide savings. The STD is a tool that will assist system managers in accurately and economically managing our COTS-Based Systems. For additional STD information, please access the following URL:

<https://rditweb.sed.monmouth.army.mil/csese/index.htm>

Submitted by Ms. Linh P. Trieu-Pham, CECOM SEC

CECOM SEC Provides Support to the Indiana Army National Guard

Last January, the Indiana Army National Guard (ARNG) sponsored an Aircraft Survivability Equipment (ASE) conference at the Army Aviation Support Facility in Shelbyville, IN. The event organizer, CW2 Charles Anderson, contacted CECOM SEC to request ARAT involvement, since the purpose of the conference was to provide information and awareness briefings to the Warfighters in ASE use and its ability to be reprogrammed. The conference attendees included staff from nine ARNG units located in Illinois, Kentucky, Missouri, and Indiana. Various UH-60 National Guard units have already deployed to support operations in Southwest Asia, and additional deployments to other areas are already scheduled, so awareness of on-board ASE and access to possible Mission Data Set (MDS) changes has become more important.

During an all day session, several speakers contributed to discussions on ASE software, weapon improvements, and ASE support infrastructure. After opening remarks from CW2 Anderson, Mr. William Thome, TYBRIN Corp., and Mr. Paul Hastert, Air Staff, discussed FALCONVIEW and its software applications for ASE. CW4 Jack Pike then discussed Man Portable Air Defense Systems (MANPADS), their development, and use of the venerable AN/ALQ-144A(V)1/3 infrared counter-measures system. The afternoon session was devoted to ARAT and was led by Mr. Pete McGrew, SRI International, who represented CECOM SEC Electronic Combat Branch (ECB) (ARAT-SE) and INSCOM LIWA (ARAT-TA). Mr. McGrew reviewed the AN/APR-39A(V)1/4, ARAT infrastructure, Multi-Service Electronic Warfare Data Distribution System (MSEWDDS), and the MDS reprogramming process. At the end of the briefings, Mr. McGrew provided a hands-on demonstration of the MSEWDDS as a secure communications medium for accessing and retrieving MDSs using the infrastructure that CW2 Anderson has available at his facility.



In addition to the standard ARAT presentations, Mr. McGrew presented details on the current ARNG task being supported by National Guard Bureau (NGB) Aviation and directed by CECOM SEC ECB. CECOM SEC EC has been tasked by NGB Aviation to complete an inventory of all ARNG units to identify deficiencies in ARAT equipment, software, and training required for the ARNG to be at the same level of readiness as the U.S. Army. Within funding constraints, multiple ARNG units are to be upgraded in FY02 with the appropriate ARAT equipment, software, and training. This ASE conference initiated the data collection effort, with Ms. Theresa Keeler, SRI International, collecting ARNG unit POC information and distributing ARAT training material to the units represented at the conference.

We hope that this will be the beginning of a new facet of support to the soldiers in the field. Thanks to the Indiana National Guard for helping us get the word out.

Submitted by Ms. Theresa Keeler, SRI International

For Your Information

Coming Events!

<i>Event</i>	<i>Location</i>	<i>Date(s)</i>
<i>Logistics Transformation Symposium</i>	<i>Richmond, VA</i>	<i>20-22 May 2002</i>
<i>UAV Payloads Conference</i>	<i>ARL, Adelphi, MD</i>	<i>4-5 June 2002</i>
<i>Science & Technology Symposium</i>	<i>Falls Church, VA</i>	<i>11-13 June 2002</i>
<i>TechNet International 2002</i>	<i>Washington, DC Convention Center</i>	<i>11-13 June 2002</i>
<i>Intelligence, Surveillance & Reconnaissance/ Time Critical Targeting Conference</i>	<i>Langley AFB, VA</i>	<i>25-27 June 2002</i>
<i>Modeling & Simulations Conference</i>	<i>Grosvenor Hotel, Orlando, FL</i>	<i>17-18 July 2002</i>
<i>IEW Conference</i>	<i>Fort Monmouth, NJ</i>	<i>August 2002</i>

Now Available on the Web

All 24 previous issues of the "ARAT Bulletin" and the "A/IEW Bulletin" are now available on the ARAT web site. The issues are available in HTML format for on-line viewing, as well as in PDF and MS Word 97 format for viewing and downloading.

Future issues will also be posted on the site and in the same format. You are encouraged to download any issue (or issues) for local reproduction and distribution within your agency.

The ARAT web site can be accessed at <http://arat.iew.sed.monmouth.army.mil/>, or from a link on the A/IEW web site at <http://www.iew.sed.monmouth.army.mil/>

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ATTENTION ELECTRONIC WARFARE OFFICERS!

Electronic Warfare Officers requiring Memory Loader/Verifier (MLV) reprogramming kits, copies of the "ARAT Software and Documentation Toolbox" CD or the "Mission Data Set Training" CD should contact either Mr. John Amoretti (DSN: (312) 992-0303/CML: (732) 532-0303) (john.amoretti@mail1.monmouth.army.mil) or R²CIL (DSN: (312) 992-9395/9392/CML: (732) 532-9395/9392) (webmaster@arat.iew.sed.monmouth.army.mil) or fax your requests to DSN: (312) 992-8287/5238 or CML: (732) 532-8287/5238.

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